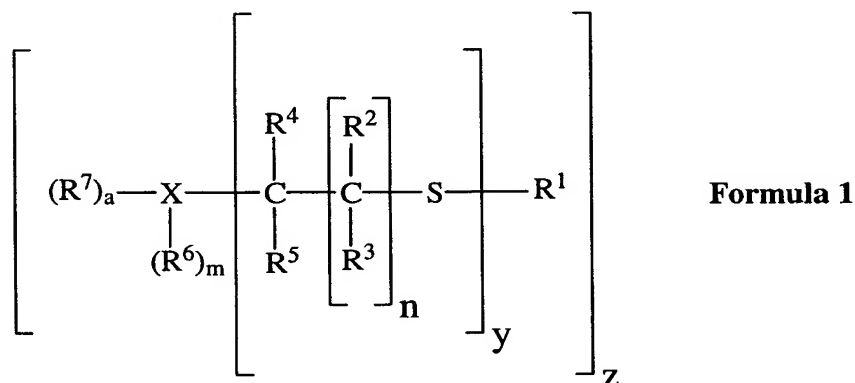


What is claimed is:

1. A polymeric composition comprising

- (a) a polymer component susceptible to heat-induced deterioration through autoxidation,
- (b) degradation products of a blocked mercaptan present in an amount of from about 1 to about 3.5 parts per hundred parts of said polymer component during processing of said polymeric composition at an elevated temperature, wherein said degradation products comprise a free mercaptan, and wherein said blocked mercaptan has the structure:



wherein:

a is 0 or 1, m and n are 0 or 1; y = 1 to 4; when y=1, z is 1 to 4; when y is more than 1, z is 1;

R¹ is an alkoxycarbonylalkyl, alkoxycarbonylalkylenyl, hydroxyalkoxycarbonylalkyl, hydroxy(polyalkoxy)carbonylalkyl, alkoxy(polyalkoxy)carbonylalkyl, mercaptoalkoxycarbonylalkyl, mercaptoalkoxycarbonylalkylenyl, tetrahydropyranyloxycarbonylalkyl, tetrahydropyranyloxy(polyalkoxy)carbonylalkyl, or alkylcarbonyloxy(polyalkoxy)carbonylalkyl radical having from 1 to 22 carbon atoms;

R², R³, R⁴, R⁵, R⁶, and R⁷, are independently hydrogen, a hydroxyl, mercapto, acyl, alkyl, alkylenyl, aryl, haloaryl, alkaryl, aralkyl, hydroxyalkyl, mercaptoalkyl, hydroxyaryl, alkoxyaryl, alkoxyhydroxyaryl, mercaptoalkylenyl, mercaptoalkoxycarbonylalkylenyl, hydroxyaryl, arylcarbonyl, mercaptoaryl, carboxyalkyl, or carboxyaryl radical having from 1 to 22 carbon atoms; and

X is aryl, haloaryl, alkaryl, hydroxyaryl, dihydroxyaryl, aralkyl, alkoxyaryl, arylcycloalkyl, or a heteroatom;

with the option that, when a is 1 and m is 0, one of the R³ and R⁵ radicals joins with R⁷ and X to form a heterocyclic moiety with X as a heteroatom selected from the group consisting of oxygen and sulfur;

with the further option that, when m is 1, R⁶ and R⁷ form a heterocyclic moiety in conjunction with X as a nitrogen atom;

with the proviso that, when R⁶ is not a hydroxyl or mercapto, z is 1;
and

(c) at least one zinc compound, wherein when both zinc chloride and zinc carboxylate are present, the ratio of zinc contributed by zinc carboxylate to zinc contributed by zinc chloride either is between 0:100 and 10:90 or is between 80:20 and 100:0.

2. The composition of claim 1 wherein said zinc compound is selected from the group consisting of zinc halides, zinc carboxylates, zinc β -diketones, and mixtures thereof.

3. The composition of claim 1 wherein X is oxygen, m is 0, R⁵ and R⁷ form a heterocyclic moiety in conjunction with X, and n is 0.

4. The composition of claim 1 wherein R¹ is alkoxycarbonylalkyl.

5. The composition of claim 1 wherein said polymeric composition comprises a halogen-containing polymer.

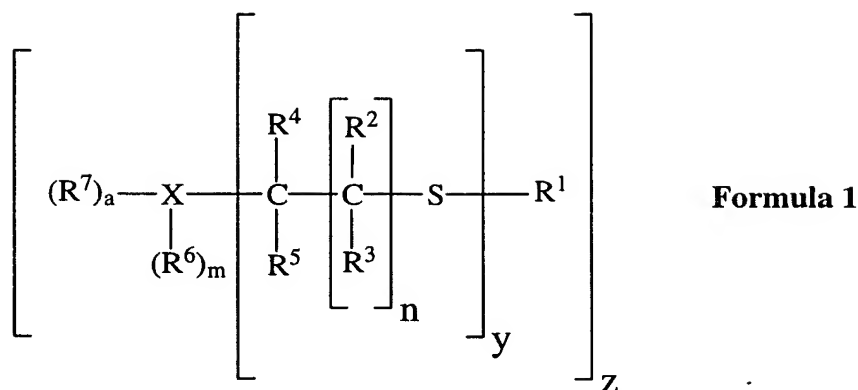
6. The composition of claim 5 wherein said halogen-containing polymer is a vinyl chloride polymer.

7. The composition of claim 1 wherein said composition further comprises at least one organotin compound.

8. A composition for stabilizing PVC comprising

(a) a zinc compound, wherein when both zinc chloride and zinc carboxylate are present, the ratio of zinc contributed by zinc carboxylate to zinc contributed by zinc chloride either is between 0:100 and 10:90 or is between 80:20 and 100:0, and

(b) a latent mercaptan having the formula



wherein

a is 0 or 1, m and n are 0 or 1; y = 1 to 4; when y=1, z is 1 to 4; and when y is more than 1, z is 1;

R¹ is an alkoxy carbonylalkyl, alkoxy carbonylalkylenyl, hydroxyalkoxy carbonylalkyl, hydroxy(polyalkoxy) carbonylalkyl, alkoxy(polyalkoxy) carbonylalkyl, mercaptoalkoxy carbonylalkyl, mercaptoalkoxy carbonylalkylenyl, tetrahydropyranyloxy carbonylalkyl, tetrahydropyranyloxy(polyalkoxy) carbonylalkyl, or alkyl carbonyloxy(polyalkoxy) carbonylalkyl radical having from 1 to 22 carbon atoms;

R², R³, R⁴, R⁵, R⁶, R⁷, are independently hydrogen, a hydroxyl, mercapto, acyl, alkyl, alkylenyl, aryl, haloaryl, alkaryl, aralkyl, hydroxyalkyl, mercaptoalkyl, hydroxyaryl, alkoxyaryl, alkoxyhydroxyaryl, mercaptoalkylenyl, mercaptoalkoxy carbonylalkylenyl, hydroxyaryl, aryl carbonyl, mercaptoaryl, carboxyalkyl, or carboxyaryl radical having from 1 to 22 carbon atoms; and

X is aryl, haloaryl, alkaryl, hydroxyaryl, dihydroxyaryl, aralkyl, alkoxyaryl, arylcycloalkyl, or a heteroatom;

with the option that, when a is 1 and m is 0, one of the R³ and R⁵ radicals joins with R⁷ and X to form a heterocyclic moiety with X as a heteroatom selected from the group consisting of: oxygen and sulfur;

with the further option that, when m is 1, R⁶ and R⁷ form a heterocyclic moiety in conjunction with X as a nitrogen atom;

with the proviso that, when R⁶ is not a hydroxyl or mercapto, z is 1.

9. The composition of claim 8 wherein said zinc compound is selected from the group consisting of zinc halides, zinc carboxylates, zinc β-diketones, and mixtures thereof.

10. The composition of claim 8 wherein X is oxygen, m is 0, and R⁷ form a heterocyclic moiety in conjunction with X, and n is 0.

11. The composition of claim 8 wherein R¹ is alkoxycarbonylalkyl.